



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2019-0023; Product Identifier 2018-NM-145-AD]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for all The Boeing Company Model 737-100, 737-200, 737-200C, 737-300, 737-400, and 737-500 series airplanes. This proposed AD was prompted by reports of cracks in the frame webs below the passenger floor. This proposed AD would require repetitive inspections for cracking of the fuselage lower lobe frames, and applicable on-condition actions. This proposed AD would also provide an optional terminating action for certain repetitive inspections. We are proposing this AD to address the unsafe condition on these products.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>. You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0023.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0023; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the regulatory evaluation, any comments received, and other information. The street address for Docket Operations (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Lu Lu, Aerospace Engineer, Airframe Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3525; email: lu.lu@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2019-0023; Product Identifier 2018-NM-145-AD” at the

beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. We will consider all comments received by the closing date and may amend this NPRM because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

We have received reports of cracks in frame webs below the passenger floor in Section 46 from Station (STA) 727A to STA 1006 between Stringers S-17L and S-17R. The cracks have been found at the typical and triangular stringer cutouts, the frame inner chord common to the channel-cargo floor support, the failsafe chord attachments to the frame web, the frame integral inboard chord at the voice recorder support, the open tooling holes, the lower lobe frame splice, the frame web at stringer clips, the frame web at the water tank shear clip attachments, and the frame web locations hidden by stringer clips and intercostals on opposite sides of the frame. Additionally, there was one report of a frame web severed that did not occur at a fatigue detail.

Cracks in frame webs, if not addressed, could result in propagation of cracks until the frame severs. Continued operation of the airplane with multiple adjacent severed frames, or the combination of a severed frame adjacent to fuselage skin chem-milled cracks, could result in an uncontrolled decompression and loss of structural integrity of the airplane.

Related Service Information under 1 CFR part 51

We reviewed Boeing Alert Service Bulletin 737-53A1362, dated September 20, 2018. The service information describes procedures for repetitive inspections for

cracking of the fuselage lower lobe frames, applicable on-condition actions, and an optional modification of the tooling holes and insulation attachment holes. On-condition actions include repetitive inspections for cracking of the lower lobe frames, repair, and repetitive post-repair inspections for cracking.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA’s Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require accomplishment of the actions identified as “RC” (required for compliance) in the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1362, dated September 20, 2018, described previously, except for any differences identified as exceptions in the regulatory text of this proposed AD.

For information on the procedures and compliance times, see this service information at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0023.

Costs of Compliance

We estimate that this proposed AD affects 262 airplanes of U.S. registry. We estimate the following costs to comply with this proposed AD:

Estimated costs for required actions

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
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Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection	Up to 56 work-hours X \$85 per hour = \$4,760 per inspection cycle	\$0	Up to \$4,760 per inspection cycle	Up to \$1,247,120 per inspection cycle

Estimated costs for optional actions

Action	Labor cost	Parts cost	Cost per product
Modification	1 work-hour X \$85 per hour = \$85 per hole	*	\$85 per hole

*Parts and materials (e.g., rivets, bolts, collars, primer, adhesive) are supplied by the operator.

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this proposed AD.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, “General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This proposed AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the

Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes and associated appliances to the Director of the System Oversight Division.

Regulatory Findings

We have determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

The Boeing Company: Docket No. FAA-2019-0023; Product Identifier 2018-NM-145-AD.

(a) Comments Due Date

The FAA must receive comments on this AD action by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all The Boeing Company Model 737-100, 737-200, 737-200C, 737-300, 737-400, and 737-500 series airplanes, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 53, Fuselage.

(e) Unsafe Condition

This AD was prompted by reports of cracks in the frame webs below the passenger floor. We are issuing this AD to address cracks that could propagate until the frame severs. Continued operation of the airplane with multiple adjacent severed frames, or the combination of a severed frame adjacent to fuselage skin chem-milled cracks, could result in an uncontrolled decompression and loss of structural integrity of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions for Group 1 Airplanes

For airplanes identified as Group 1 in Boeing Alert Service Bulletin 737-53A1362, dated September 20, 2018 (“BASB 737-53A1362”): Within 120 days after the effective date of this AD, accomplish actions to correct the unsafe condition (e.g., inspections and on-condition actions) using a method approved in accordance with the procedures specified in paragraph (k) of this AD.

(h) Required Actions for Group 2 through 20 Airplanes

For airplanes identified as Group 2 through 20 in BASB 737-53A1362: Except as specified in paragraph (i) of this AD, at the applicable times specified in paragraph 1.E., “Compliance,” of BASB 737-53A1362, do all applicable actions identified as “RC” (required for compliance) in, and in accordance with, the Accomplishment Instructions of BASB 737-53A1362.

(i) Optional Terminating Action for Certain Repetitive Inspections

For airplanes identified as Group 2 through 20 in BASB 737-53A1362, accomplishment of part 13, “Preventive Modification of the Frame Web Tooling Hole and Insulation Attachment Hole in the Section 46 Lower Lobe Frame,” in accordance with the Accomplishment Instructions of BASB 737-53A1362, terminates the repetitive open hole high frequency eddy current inspections required by paragraph (h) of this AD, for the modified tooling hole or insulation attachment hole location only.

(j) Exceptions to Service Information Specifications

(1) For purposes of determining compliance with the requirements of this AD: Where BASB 737-53A1362 uses the phrase “the original issue date of this service bulletin,” this AD requires using “the effective date of this AD.”

(2) Where BASB 737-53A1362 specifies contacting Boeing for repair instructions or alternative inspections: This AD requires doing the repair, or doing the alternative

inspections and applicable on-condition actions, using a method approved in accordance with the procedures specified in paragraph (k) of this AD.

(k) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Los Angeles ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (l)(2) of this AD. Information may be emailed to:

9-ANM-LAACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Los Angeles ACO Branch, FAA, to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(4) Except as required by paragraph (j)(2) of this AD: For service information that contains steps that are labeled as Required for Compliance (RC), the provisions of paragraphs (k)(4)(i) and (k)(4)(ii) of this AD apply.

(i) The steps labeled as RC, including substeps under an RC step and any figures identified in an RC step, must be done to comply with the AD. If a step or substep is labeled "RC Exempt," then the RC requirement is removed from that step or substep. An

AMOC is required for any deviations to RC steps, including substeps and identified figures.

(ii) Steps not labeled as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the RC steps, including substeps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.

(I) Related Information

(1) For more information about this AD, contact Lu Lu, Aerospace Engineer, Airframe Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3525; email: lu.lu@faa.gov.

(2) For information about AMOCs, contact George Garrido, Aerospace Engineer, Airframe Section, FAA, Los Angeles ACO Branch; 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5232; fax: 562-627-5210; email: george.garrido@faa.gov.

(3) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Issued in Des Moines, Washington, on February 21, 2019.

Dionne Palermo,
Acting Director,
System Oversight Division,
Aircraft Certification Service.

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